

# Using Clinical Data to Inform Clinical Quality Improvement Strategies

**Greater Baltimore Medical Center**

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# Technology

- Technology investments to coordinate and manage care
  - Chesapeake Regional Information System for our Patients (CRISP)
  - Phytel / Internal Data Warehouse
  - E-Clinical Works (EHR) Registry
  - Care Coordination Medical Record (CCMR)
- Results from Medicare Shared Savings Program Year 1

# GBHA/GBMC

- Chartered in 2011 to integrate delivery of both employed and community-based clinical services
  - Network of approximately 100 primary care providers
- Goal: Improve access for patients, maximize quality, reduce cost of care
- Approved as an Accountable Care Organization (ACO) through the Medicare Shared Savings program in July 2012
- 2013 7 standardized NCQA Level 3 PCMH primary care offices working together for the system

# Technology Improvement Efforts

- **In order to accomplish the Triple Aim, GBHA uses new technologies to provide the best coordinated care for patients**
- Four new technologies were implemented to coordinate and manage care

## **1. Chesapeake Regional Information System for our Patients (CRISP)**

- Notification sent when any GBMA patient is admitted or discharged from any hospital or ED facility within Maryland

# CRISP

- Encounter Notification System
- GBMA uploads patients who had an office visit within 18 months
- CRISP notifies Care Coordinators twice per day (6:00am and 1:00pm)
- Care Coordinators retrieve medical records from discharging facility
- RN Care Manager calls patient within 2 business days
  - Medication Reconciliation
  - Discharge Summary Overview
  - Schedule PCP appointment within 14 days
  - Identifies barriers for the patient to follow-up with appropriate care

# Utilization Reports

## Utilization Report Summary

**Class:** Inpatient

**Event:** Discharge

**Date Range:** 10/1/13 - 12/31/13

**Practice:** Hunt Valley

Patient Name	DOB	Provider	Number of Discharges
John Smith	1/1/1965	Mark Lamos	7
John Smith I	2/7/1970	Robin Motter-Mast	5
John Smith II	3/2/1967	Andrea Olaru	4
John Smith IV	4/5/1945	Deb Jones	3
John Smith V	5/8/1954	Mark Lamos	3

Care Team runs two reports:

- Monthly Utilization (twice a month)
- Previous 48 hour (daily)

# Transition of Care

- Notified if any GBMA PCP patient is admitted and discharged from any ED or IP facility in Maryland
- Averaging ~630 discharges/month (21/day)
- Care Managers and Coordinators following up with 7 Primary Care Practices and 2 aligned ACO practices.

# Patient Story

- Patient had insurance, but lost coverage
- She needed help with her medical condition, but did not want to go to the GBMA PCP because she couldn't afford to pay the co-pay each visit
- Patient was in and out of the ED 14 times from October 15, 2013 – January 5, 2014
- Care Coordinator identified this patient on the utilization report and brought to the Provider
- Provider had Care Coordinator work with patient to get Financial Assistance
  - The Patient able to see the PCP within the PCMH– not go to ED for each appointment
- Patient has not been back to ED since January 5, 2014

# Technology Improvement Efforts

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## **2. Phytel**

- Population Health technology
- Began December of 2013

# Phytel

- Pulls data out of eCW EMR on a nightly basis
- Identifies care opportunities
  - Gaps in Care
    - Example: Missing Mammogram
  - Out-of-control measures
    - Example: A1c >8.0
- Assists with pre-visit planning
- Shows Diabetic patients in a scatter plot (next slide)
- GBMC is developing an internal Data Warehouse to have similar capabilities as Phytel

# Diabetic Population Snapshot

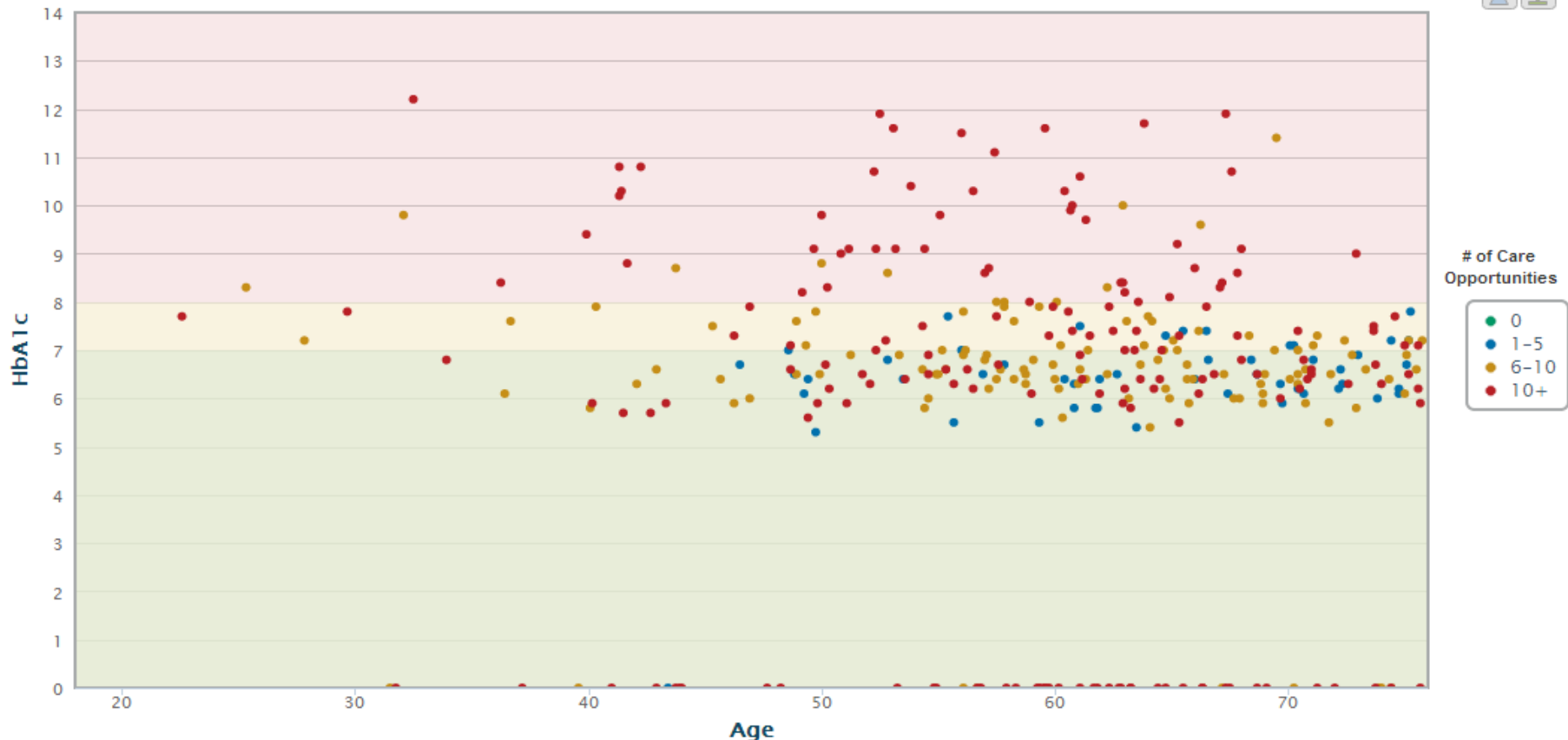
Groups: Texas Station Providers: All Providers Population: HbA1c by Age

Update Results

Export

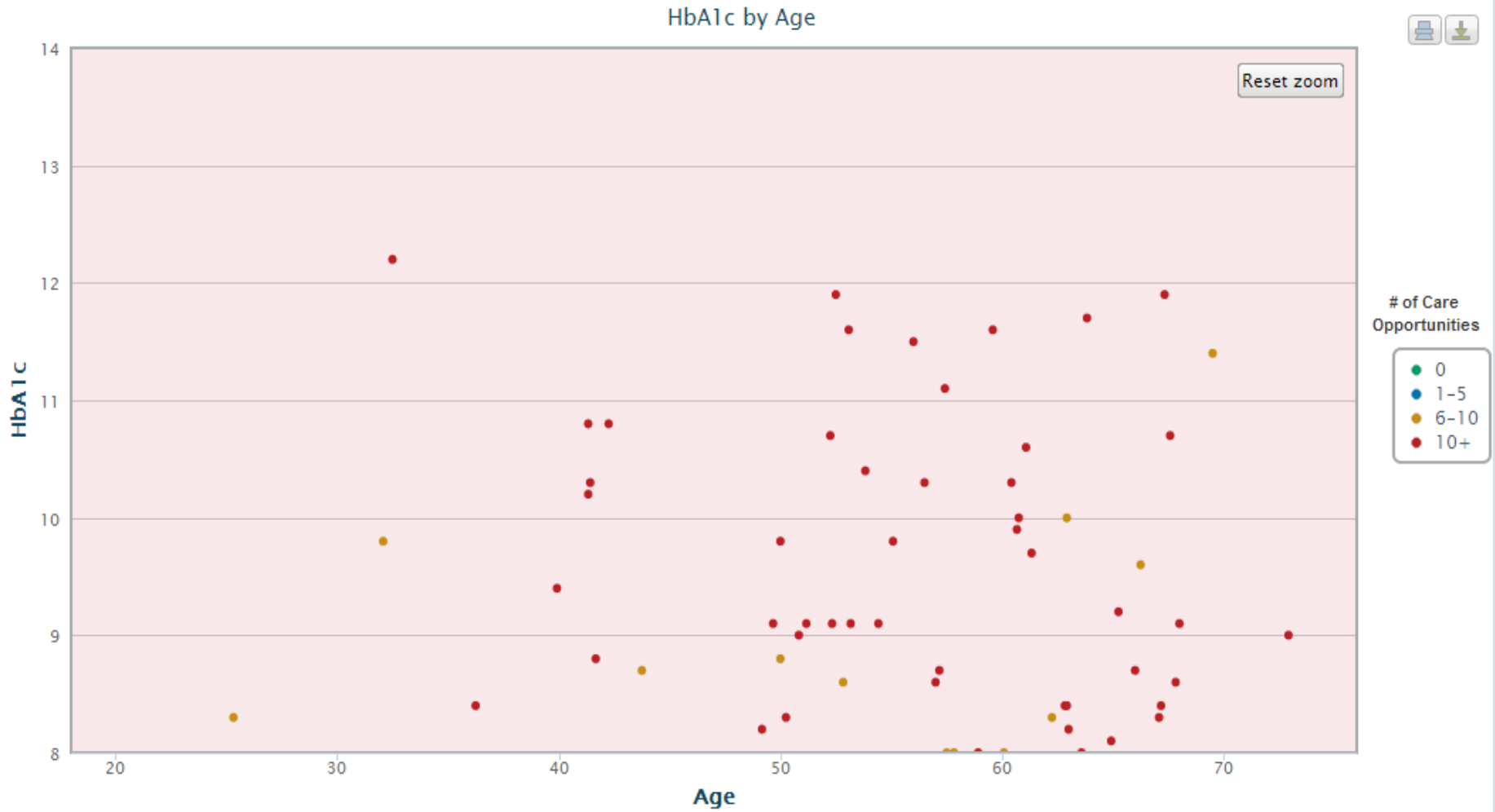


HbA1c by Age



*\* Graph shows all patients with Diabetes listed in the problem list*

# Target Population (HbA1c >8)



\* Graph is filtered by patients with HbA1c >8.0

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## **1. Chesapeake Regional Information System for our Patients (CRISP)**

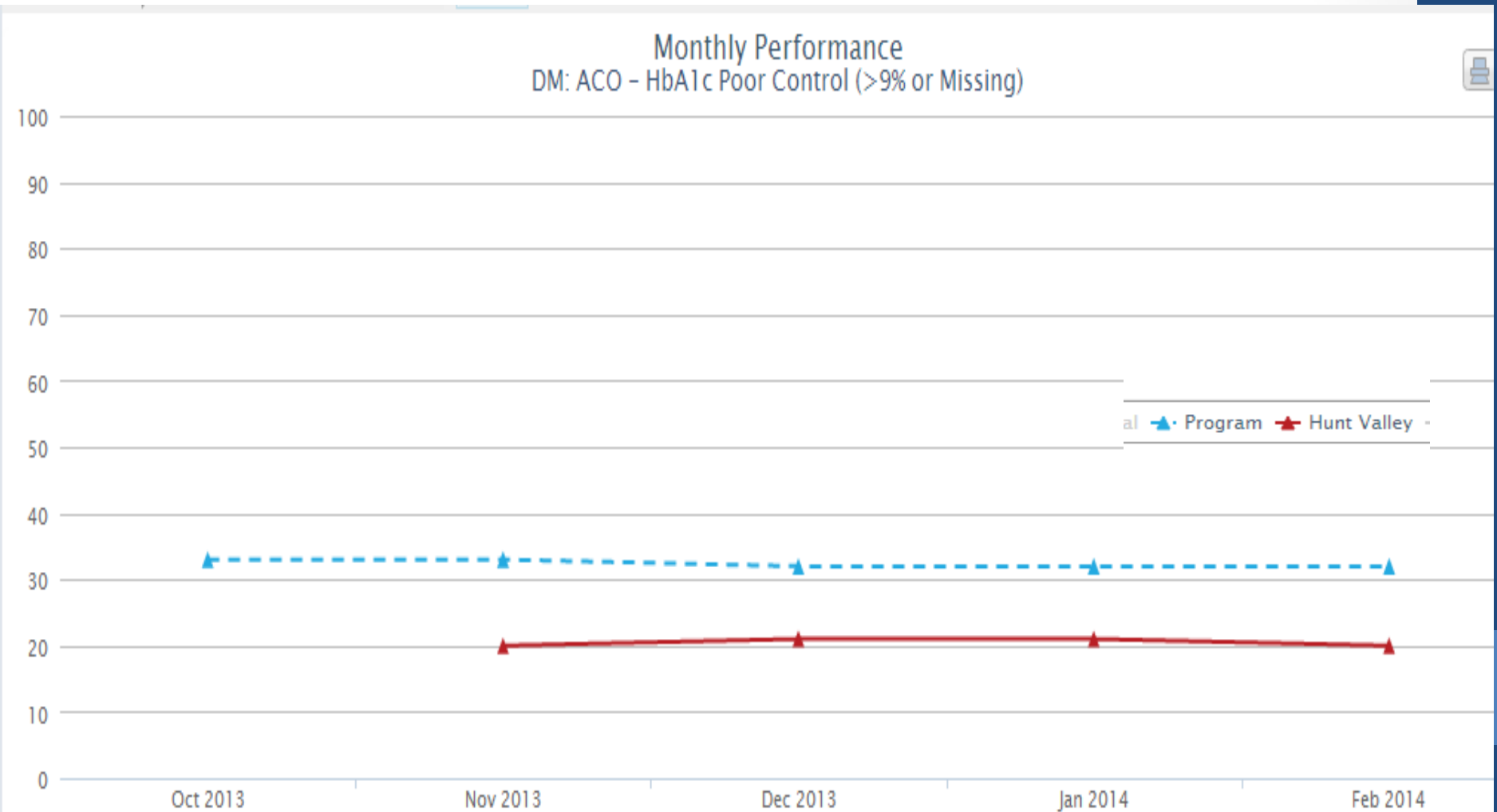
- Notification sent when any GBMA patient is admitted or discharged from any hospital or ED facility within Maryland

## **2. Phytel**

- Population Health technology

## **3. EMR Registry**

# HbA1c Poor Control Benchmark



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## 2. Phytel

- Population Health technology

## 3. EMR Registry

## 4. Care Coordination Medical Record (CCMR)

- EMR designed specifically for Care Management

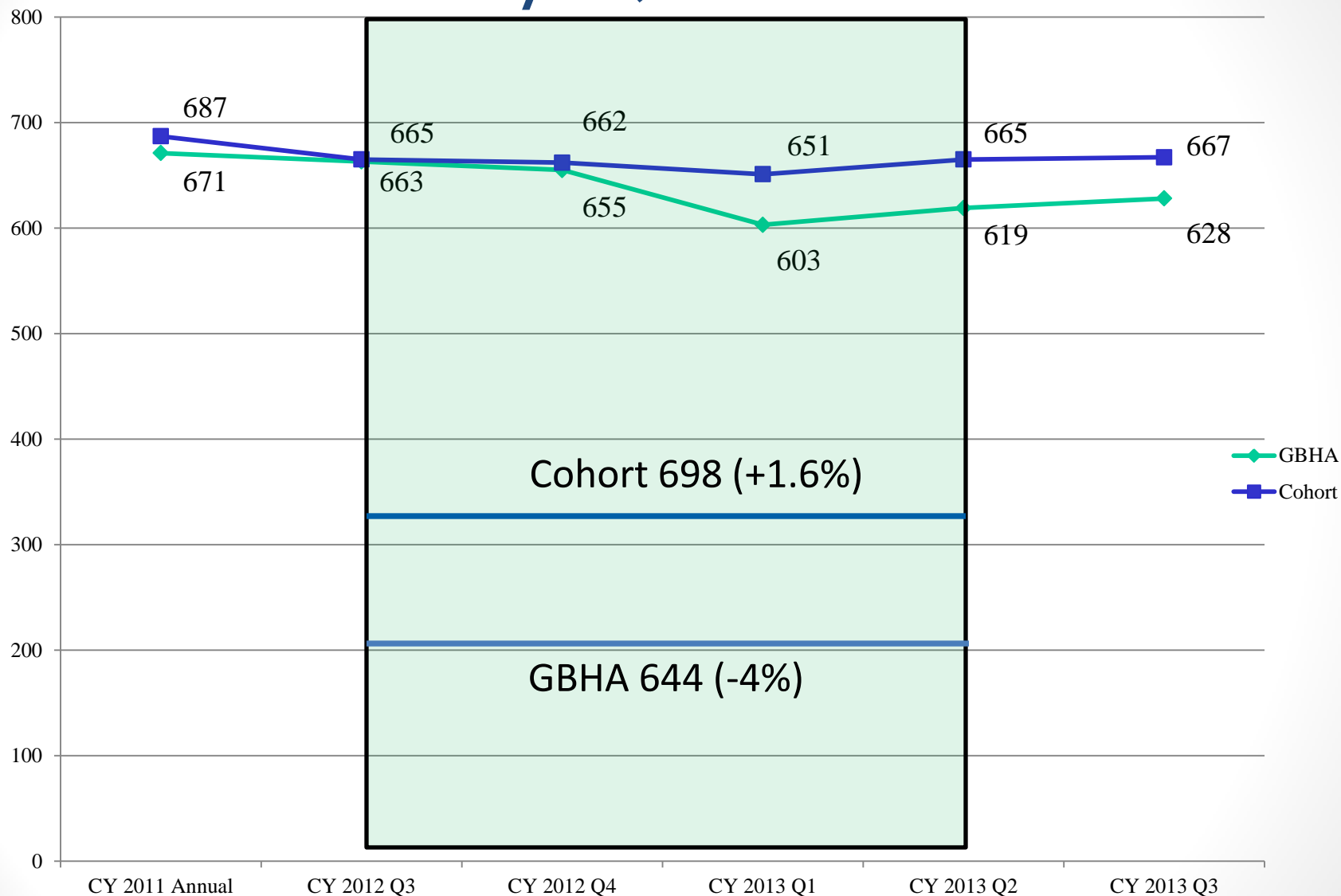
# CCMR

- Beta-Partner with eClinicalWorks to develop an electronic medical record specific to Care Management
- Standard work between Care Managers:
  - Predefined drop-down/checklists for Care Plan questions
- Action Plan
- Task, appointment, and reminder capabilities

# Medicare Shared Savings Program ACO Results

- Results trended from CY 2011 to CY2013 Q3
- Compares GBHA to the cohort (all organizations in the MSSP)
- GBHA shows an improvement in both quality and cost per capita metrics

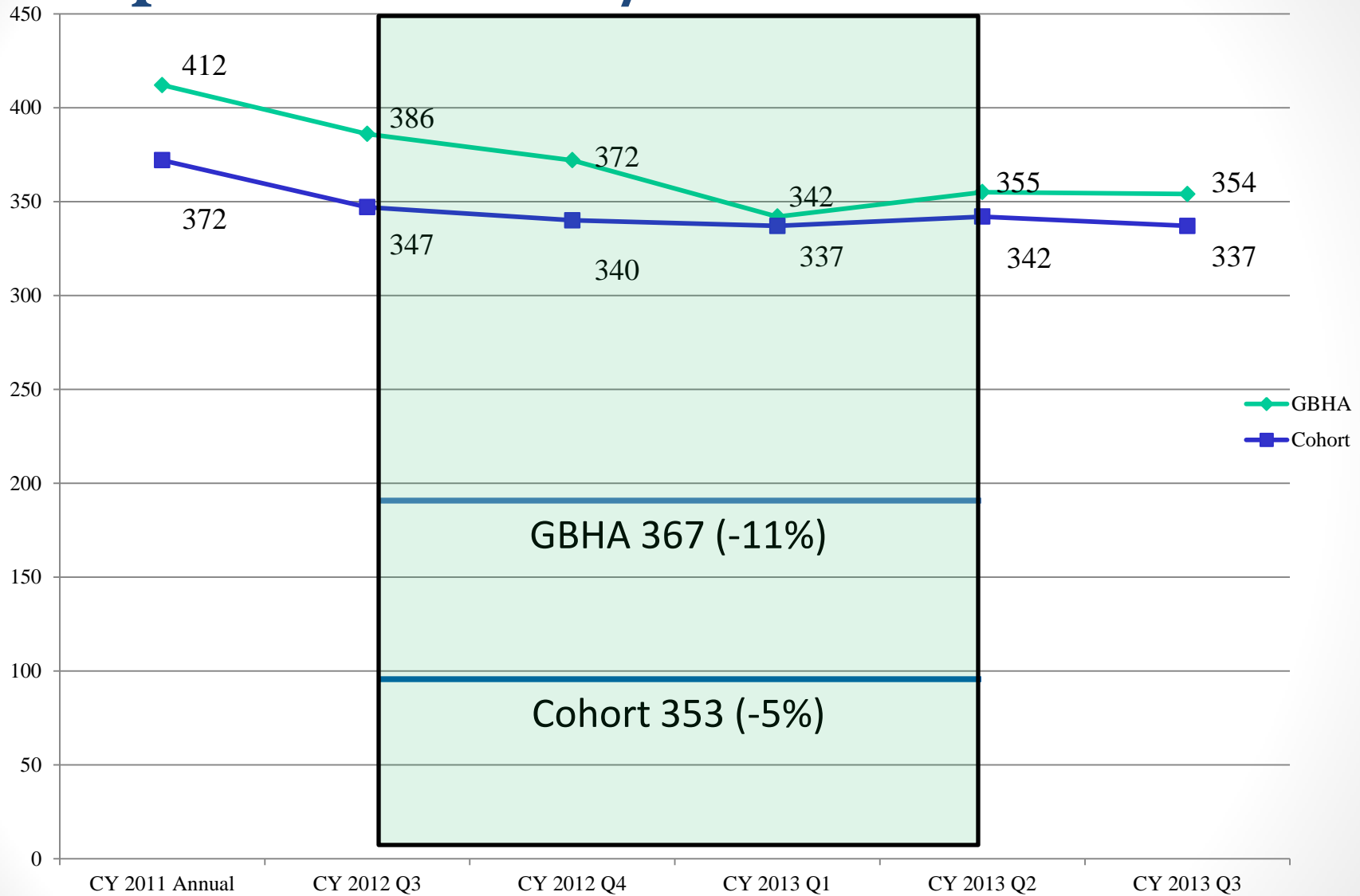
# ED Visits/ 1,000 Plan Years



Cohort = 2012 CMS ACO Median

CY 2013Q1 Data missing 2 weeks  
of claims

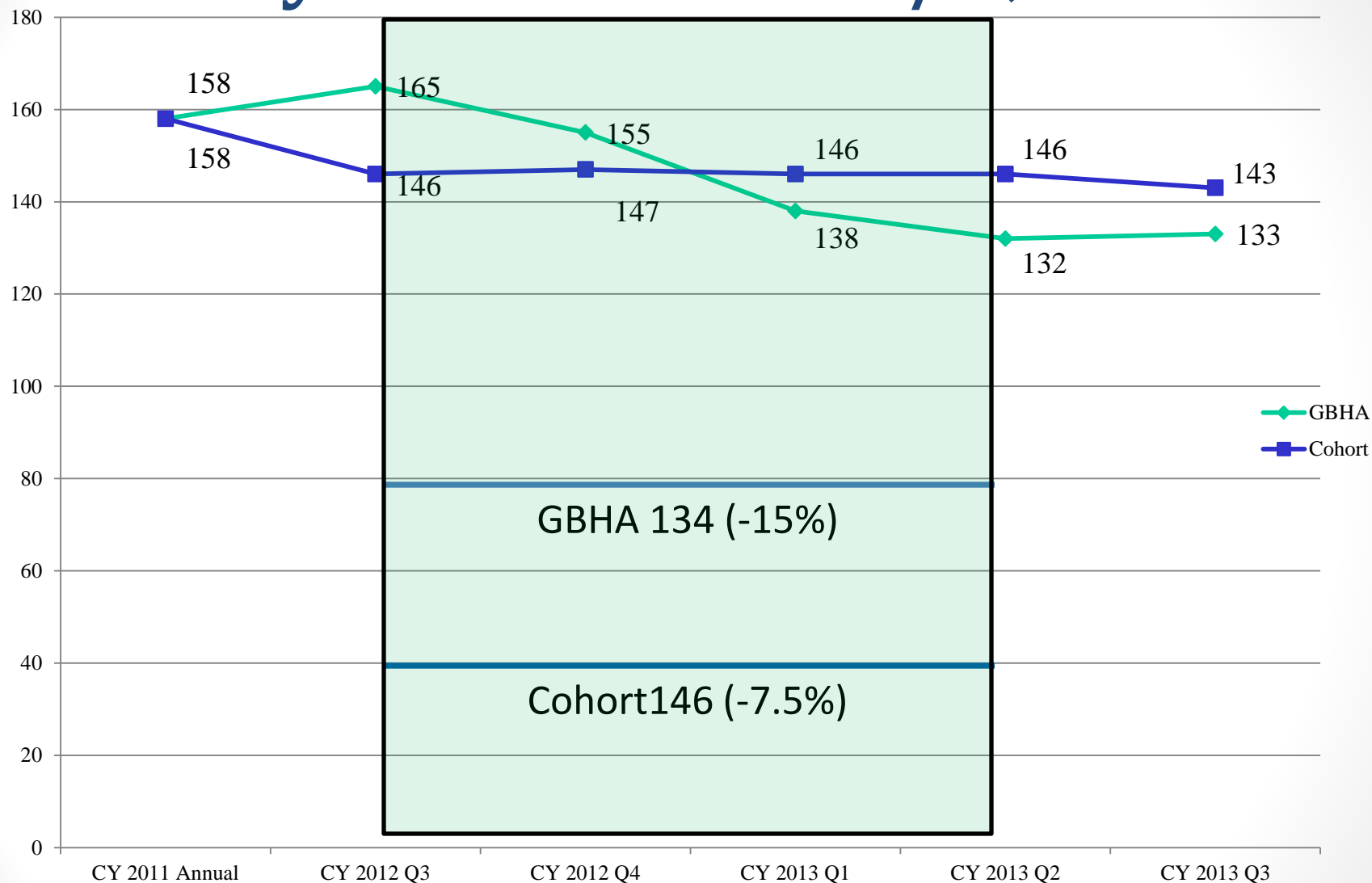
# Hospitalizations/ 1,000 Plan Years



Cohort = 2012 CMS ACO Median

CY 2013Q1 Data missing 2 weeks  
of claims

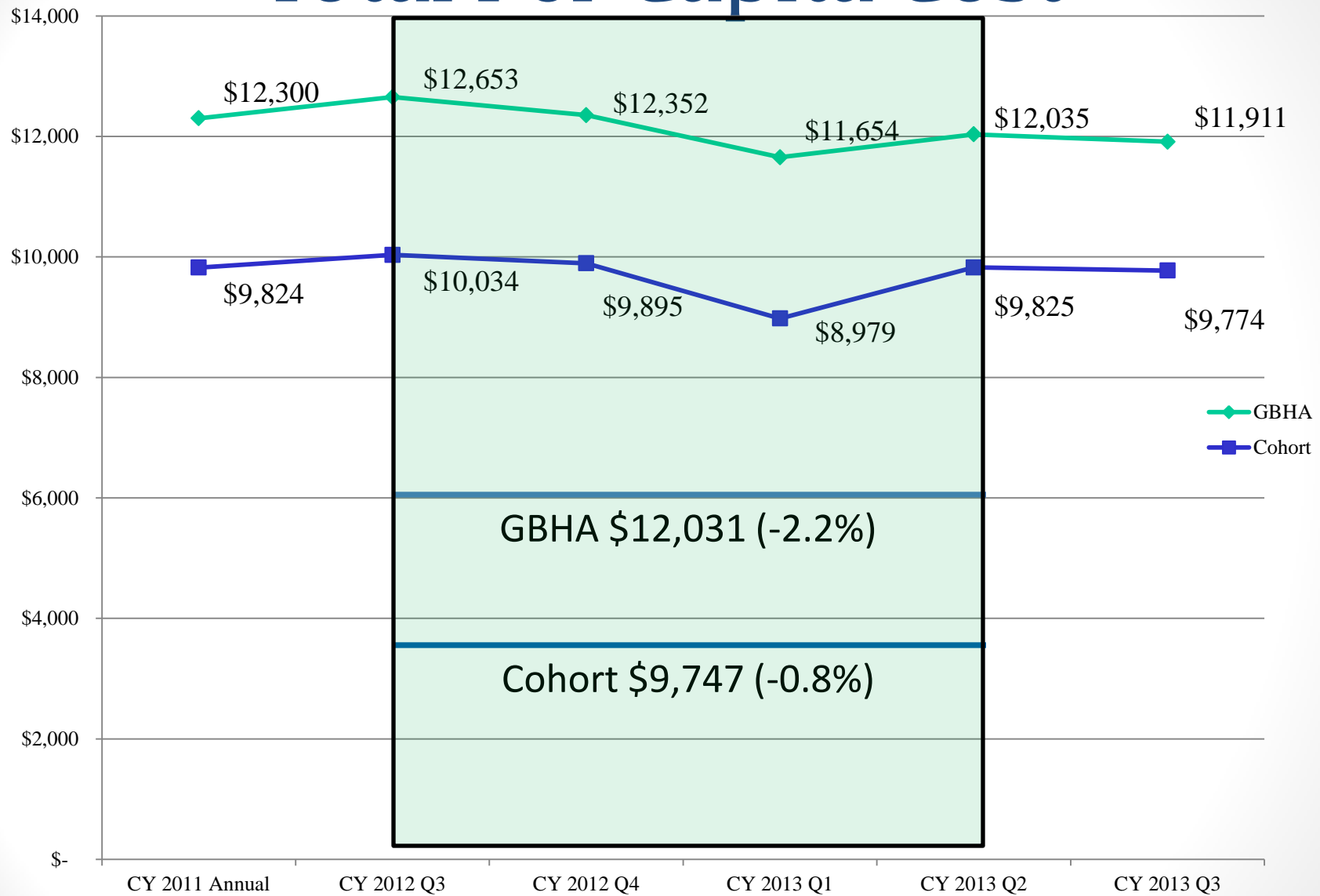
# 30-Day Readmissions/1,000 DC



Cohort = 2012 CMS ACO Median

CY 2013Q1 Data missing 2 weeks  
of claims

# Total Per Capita Cost



Cohort = 2012 CMS ACO Median

CY 2013Q1 Data missing 2 weeks  
of claims

# Summary

- Results so far show an improvement in cost per capita and quality measures
- Continuous improvement to further leverage technologies
- These technologies streamline the management of GBHA's ACO population
  - Goal: Reduce costs while improving quality

# Questions?

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